

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 (currently amended). A method for topical treatment of diseased tissue, said method comprising the steps of:

applying a PDT agent directly to said diseased tissue to form a treatment zone;

purgings excess agent; and

applying a substantially uniform light field to said treatment zone to activate agent associated with said tissue, wherein said light penetrates said treatment zone while minimizing activation of said agent outside said treatment zone,

wherein said step steps of purging is ~~and activating said agent~~ are performed within approximately 30 minutes of said step of applying said agent and further wherein said purging step is followed immediately by said activating step.

2 (original). The method of Claim 1 wherein said light is at a wavelength so that said light penetrates said treatment zone while minimizing further penetration into surrounding tissue.

3 (original). The method of Claim 2 wherein said wavelength is between approximately 400-600 nm.

4 (original). The method of Claim 1 wherein said light activates said agent by single-photon excitation.

5 (withdrawn). The method of Claim 1 wherein said light activates said agent by two-photon excitation.

6-10. (canceled)

11 (previously presented). The method of Claim 1 further comprising the step of diagnosing said diseased tissue before applying said PDT agent, wherein said step of diagnosing is almost immediately followed by said steps of applying a PDT agent, purging excess agent and applying light so that said method of diagnosis and treatment is done in a single procedure.

12. (canceled)

13 (original). The method of Claim 1 wherein said PDT agent is Rose Bengal.

14 (original). The method of Claim 13 wherein said light is at a wavelength of between approximately 500-600 nm.

15. (canceled)

16 (original). The method of Claim 1 wherein said PDT agent includes a targeting moiety.

17 (previously presented). The method of Claim 16 wherein said targeting moiety is selected from the group comprising deoxyribonucleic acid (DNA), ribonucleic acid (RNA), amino acids, proteins, antibodies, ligands, haptens, carbohydrate receptors, carbohydrate complexing agents, lipid receptors, lipid complexing agents, protein receptors, protein complexing agents, chelators, and encapsulating vehicles.

18. (canceled)

19 (withdrawn). The method of Claim 1 wherein said PDT agent is applied systemically.

20 (original). The method of Claim 1 wherein said excess agent is purged by natural systemic clearance.

21 (original). The method of Claim 1 wherein said excess agent is purged by flushing said tissue with liquid.

22. (canceled)

23 (original). The method of Claim 1 wherein said light is applied via a balloon catheter apparatus.

24 (original). The method of Claim 23 wherein said balloon catheter apparatus is non-compliant.

25 (original). The method of Claim 24 wherein said non-compliant balloon catheter apparatus is enlarged so as to substantially distend said treatment zone.

26 (original). The method of Claim 23 wherein said balloon catheter is compliant.

27 (original). The method of Claim 23 wherein said balloon catheter is filled with a scattering medium.

28 (original). The method of Claim 23 wherein said balloon catheter comprises a material that scatters light.

29-30. (canceled)

31 (currently amended). A method for treatment of disease in vessels of the circulatory system, said method comprising the steps of:

applying a PDT agent directly to diseased tissue in said vessel to form a treatment zone;

allowing said PDT agent to accumulate in said diseased tissue for a period not to exceed 30

minutes; and

applying a substantially uniform light field to said treatment zone to activate agent associated with said tissue, wherein said light penetrates said treatment zone while minimizing activation of said agent outside said treatment zone, said step of light application being performed immediately following ~~within approximately 30 minutes of~~ said ~~steps~~ step of PDT agent application and accumulation.

32 (withdrawn). The method of Claim 31 wherein said PDT agent is applied parenterally.

33 (withdrawn). The method of Claim 31 wherein said PDT agent is applied via intravenous injection.

34. (canceled)

35 (original). The method of Claim 31 wherein said light is at a wavelength is between approximately 400-600 nm.

36 (original). The method of Claim 31 wherein said PDT agent is applied directly to the diseased tissue.

37 (original). The method of Claim 36 wherein said agent is applied through a capillary tube.

38 (original). The method of Claim 31 wherein said PDT agent is Rose Bengal.

39 (original). The method of Claim 38 wherein said light is at a wavelength of between approximately 500-600 nm.

40-67. (canceled)

68 (currently amended). A method for treatment of superficial diseased tissue in a human or animal body, said method comprising the steps of:

applying a PDT agent to said diseased tissue so as to cover, perfuse, permeate or saturate said diseased tissue;

allowing said PDT agent to accumulate in said diseased tissue for a period not to exceed 30 minutes; and

applying minimally penetrating visible light to said diseased tissue, wherein said minimally penetrating visible light comprises a substantially uniform light field that penetrates said diseased tissue and activates said PDT agent so as to substantially only treat said superficial diseased tissue, and wherein said step of light application is performed immediately following ~~within approximately 30 minutes of said steps~~ step of PDT agent application and accumulation.

69 (previously presented). The method of Claim 68 wherein said agent is in a topical formulation.

70. (canceled)

71 (previously presented). The method of Claim 68 wherein said light is at a wavelength between approximately 400-600 nm.

72 (previously presented). The method of Claim 68 wherein said PDT agent comprises Rose Bengal.

73-76. (canceled)

77 (previously presented). The method of Claim 72 wherein said light is at a wavelength of between approximately 500-600 nm.

78. (canceled)

79 (previously presented). The method of Claim 68 wherein said PDT agent includes a targeting moiety.

80 (previously presented). The method of Claim 79 wherein said targeting moiety is selected from the group comprising deoxyribonucleic acid (DNA), ribonucleic acid (RNA), amino acids, proteins, antibodies, ligands, haptens, carbohydrate receptors, carbohydrate complexing agents, lipid receptors, lipid complexing agents, protein receptors, protein complexing agents, chelators, and encapsulating vehicles.

81. (canceled)

82 (previously presented). The method of Claim 68 wherein said light is applied via a catheter apparatus.

83 (previously presented). The method of Claim 68 wherein said light is applied by a light source selected from the group comprising fiberoptic bundles, hollow-core optical waveguides, liquid-filled waveguides, light emitting diodes, micro-lasers, monochromatic lasers, lamps, continuous wave lasers, and pulsed lasers.

84. (previously presented) The method of Claim 68 further comprising the step of purging excess agent after said agent has been applied.

85 (currently amended). A method for treatment of diseased tissue, said method comprising the steps of:

applying Rose Bengal to said diseased tissue so as to cover, perfuse, permeate or saturate said diseased tissue;

allowing said Rose Bengal to accumulate in said diseased tissue for a period not to exceed 30 minutes; and

applying a substantially uniform visible light to said diseased tissue, wherein said visible light penetrates said diseased tissue and activates said Rose Bengal to treat said diseased tissue, and

wherein said step of light application is performed immediately following ~~within approximately 30~~
~~minutes of said steps~~ step of applying Rose Bengal application and accumulation.

86 (previously presented). The method of Claim 85 wherein said agent is in a topical formulation.